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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,927	11/16/2000	Takashi Yamamoto	001527	3205

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 12/12/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,927

Applicant(s)

YAMAMOTO ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 October 2002 has been entered.

Claim Rejections - 35 USC § 112

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims have been amended to state that developer is transported by a developing machine to form a multicolored toner image. This new recitation is indefinite because the "developing machine" is an apparatus yet there is structure described for this apparatus. It is therefore unclear what machine is being claimed in the methods. It appears that this rejection could be overcome by replacing "developing machine" with "developer support" noting the disclosure on page 11, lines 9-12 and 20-29.

The claims are also indefinite because they recite the step of visualizing the latent image to form a multicolored toner image whereby each monochromatic color toner image is formed by a mutually independent developing step and then superposing the resulting monochromatic toner images with one another to form a multicolored image. The claims as presented are indefinite because it is unclear how the initial requirement of a visualizing to form a multicolor

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toner image from a latent image relates to the "each monochromatic color toner image". There appears to be only one latent image formed yet and one multicolor development step, yet there are plural monochromatic images toner images formed. Clarification of the claims is suggested.

Claims 2 and 10 are indefinite because it is unclear if "the former" refers to the particles having a mean particle diameter of 30 to 100 nm.

Claim Rejections - 35 USC §§ 102 & 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ugai *et al.* in US Patent 5,698,354.

This reference was applied in the last Office action to claims 17 and 18, dependent on claims 1 and 9, respectively. The limitations of these dependent claims have been added to claims 1 and 9. Thus, the discussion of claims 17 and 18 in the last Office action is applicable to the instant claims for the reasons of record.

Applicants traverse this rejection because the reference does not disclose the aggregation degree or charge ratio limitations of the instant claims. The Examiner agrees that the reference does not recite the claimed aggregation degree or its charge ratio or the charge ratio in charge amount as claimed. However, the Examiner has set forth reasons to believe that these features are inherently present in the prior art. Those reasons will not be repeated here except where necessary to specifically respond to applicant's traversal. See the discussion of Ugai in the last Office action, pages 5 and 6.

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Applicants traverse the rejection noting that Ugai's preferred amount of external additive only partially overlaps with the amounts used in the instant invention. Further, the reference discloses both contact and non-contact type development and is not specifically concerned with the problems of contact development processes (response pp. 6 & 7). Specific differences in mechanical and electrical stresses are discussed as concerns in contact development (response p. 7).

Ugai identically discloses a contact type development process using one-component non-magnetic developer. For example, Examples 81-97 use the contact type development process performed by the development device in Figure 9 (col. 57, l. 17 - col. 58, l. 24).

Although non-contact type development is also disclosed, the reference exemplifies non-contact ^{- sic.} ~~contact~~ type development as required by the instant claims. The reference does not discuss the specific mechanical and electrical stresses in the process, but because the reference has the same process as claimed the reference's inventors would have been expected to consider all relevant characteristics for that process. The Examiner also notes that the general concept of mechanical and electrical stress is not claimed, except as related to the claimed aggregation and charging characteristics. Those characteristics are fully addressed by this rejection.

The reference exemplifies the use of hydrophobic silica external additives, which are also used in the instant specification. The specification indicates that the characteristics of the external additives is critical to obtain the claimed aggregation and charging characteristics (spec. p. 22, l. 18 *et seq.* & spec. p. 30, l. 34 - p. 31, l. 33). The reference silicas are used in material amounts and have sizes similar to those used in the instant specification (compare Cyan Toner 21 and 24 with Preparation of Toner C on spec. p. 25 & the disclosure on spec. p. 22, l. 32-36). Also note Cyan Toner 25, which has a combination of external additives with sizes of 15 nm and 70 nm (relevant to claims 2 and 10). Cyan Toner 29 is similarly relevant.

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Because the silica particles are similar to those exemplified in the instant invention it appears that the reference silicas would inherently have the claimed BET surface area. Ugai also teaches that the toner should have a constant charge amount (col. 14, l. 19-20), such as through the use of a charge control agent. This suggests minimization of change in charge amount through use as specified in claim 9's change ratio. A minimization of charging amount would give a ratio of 1 in claim 9.

Based on the substantial similarity in toner composition and external additives and the disclosure in the specification that the amount and size of external additives are critical to obtain the claimed aggregation and charging characteristics there is sufficient reason to believe that the reference inherently has the claimed aggregation degree, its change ratio, and the change ratio in charge amount when conducting the contact-type development process using the single-component developer of Ugai.

The rejection is still seen as proper and is maintained.

Conclusion

Those rejections not repeated are withdrawn based on applicant's amendments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
December 11, 2002

A handwritten signature in black ink, appearing to read 'CRD', with a long horizontal flourish extending to the right.

**CHRISTOPHER RODEE
PRIMARY EXAMINER**